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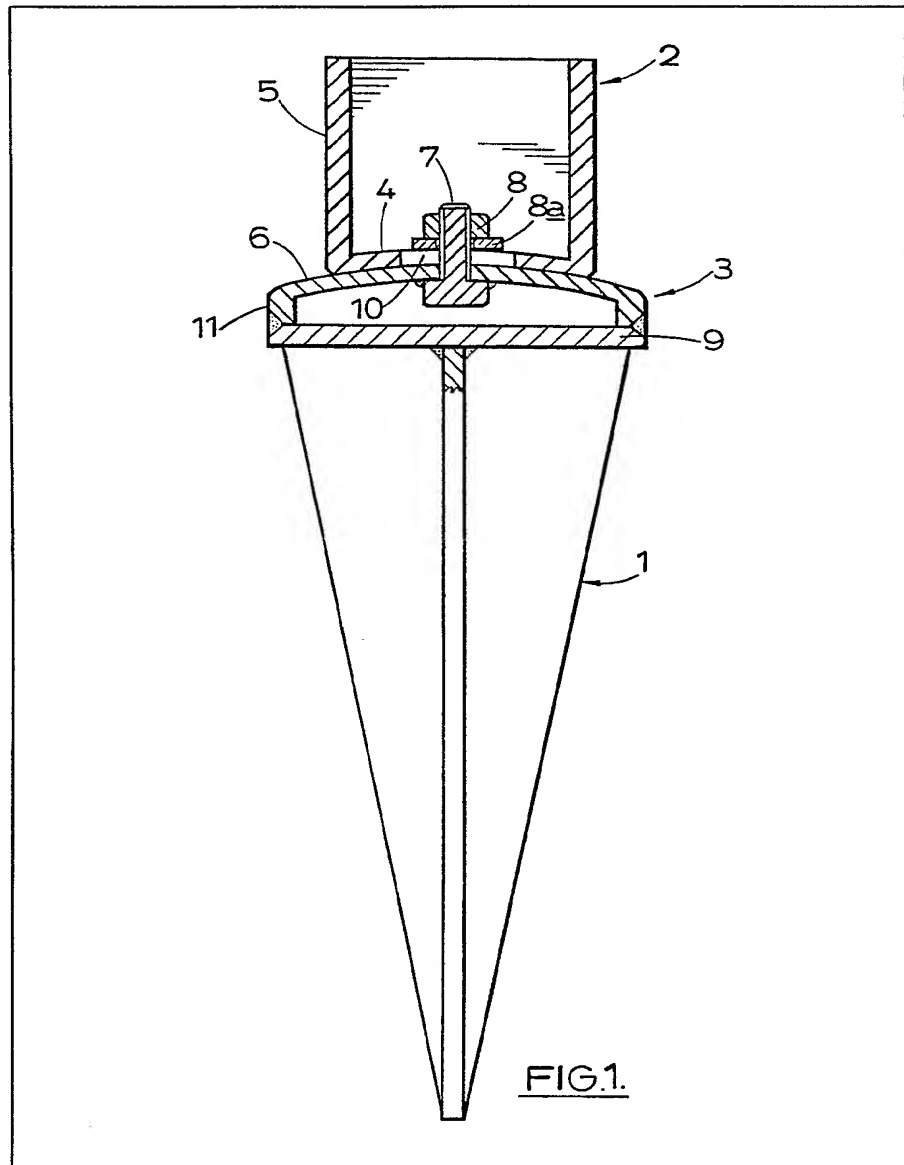
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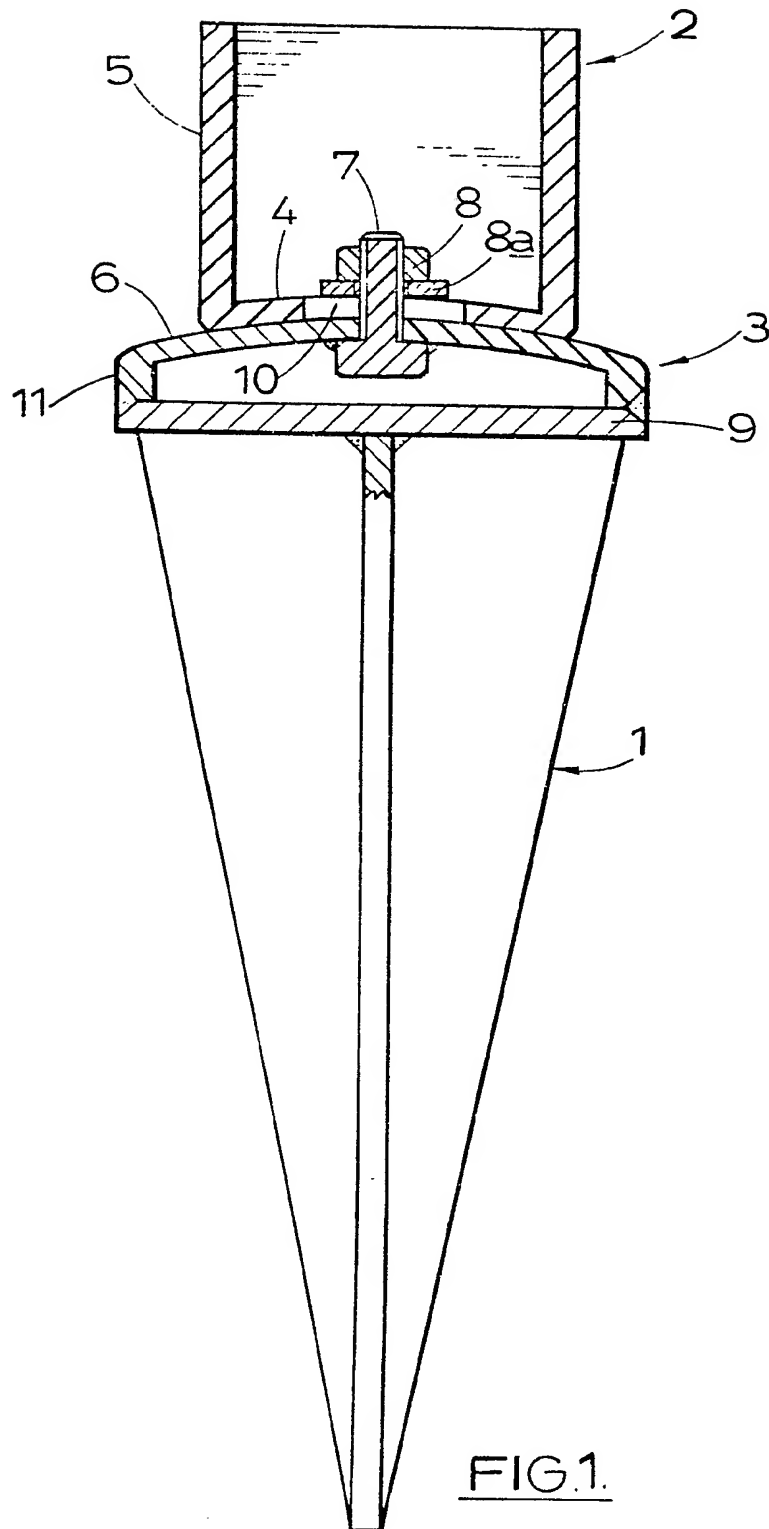
(54) **Post support**

(57) A post support comprises a first member (1) having a ground engaging portion (1a, 1b, 1c), a second member (2) incorporating a generally square post receiving pocket, and a joint (3) for detachably mounting the second member (2) upon the first member (1) in a desired position. The joint (3) is constituted by complementary co-operating bearing surfaces (6, 4) in combination with a nut and bolt connection (7, 8) for clamping the bearing surfaces together.

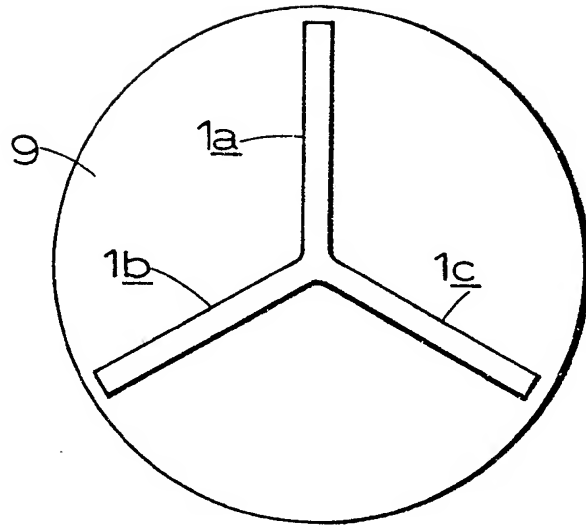
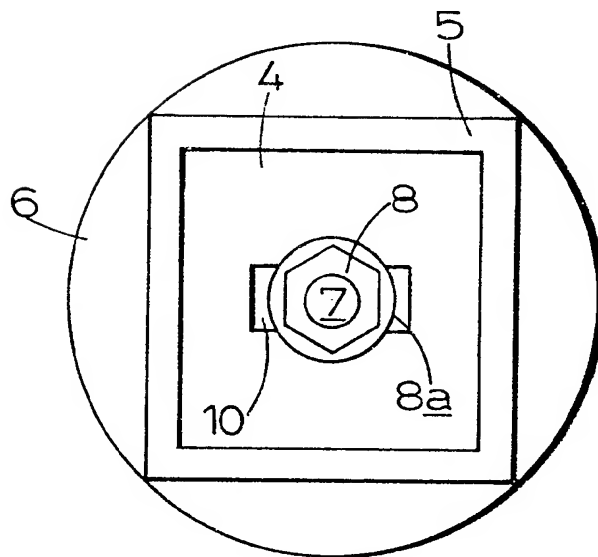


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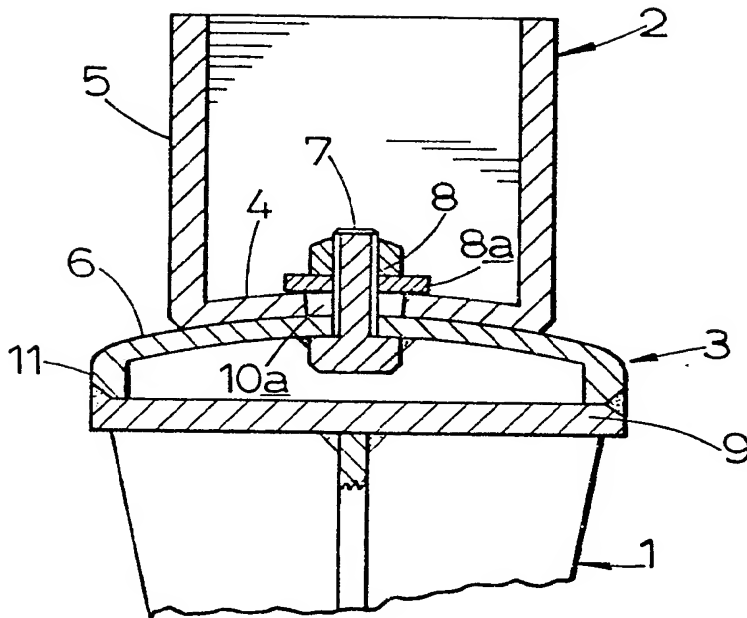
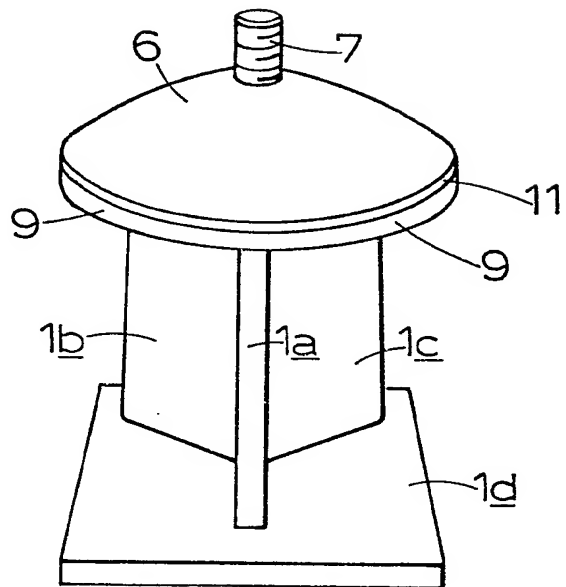
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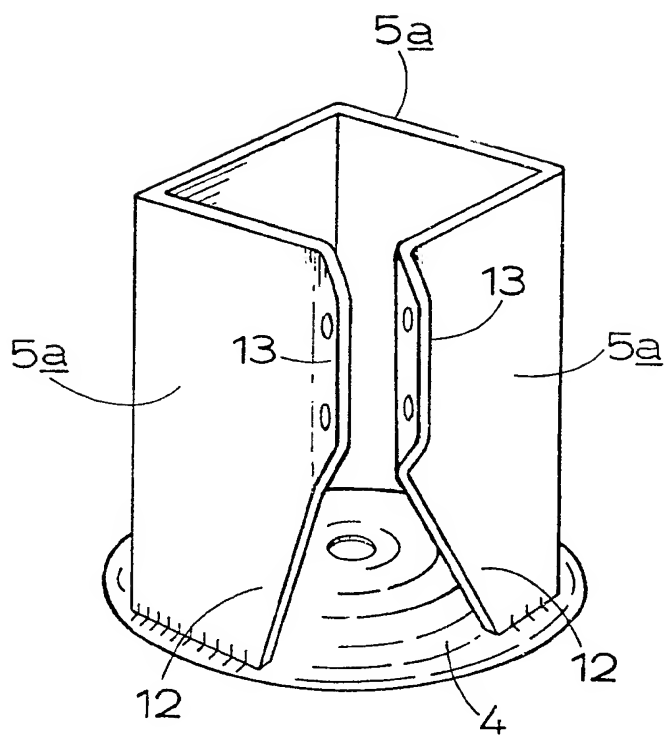
FIG. 1.

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FIG. 2.FIG. 3.

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FIG. 4.FIG. 5.

FIG. 6.

## SPECIFICATION

## Post support

The invention relates to means for supporting vertical posts, for example, for supporting fencing, sheds or other structures. Such post supports normally comprise a first portion adapted to be driven into or to be anchored in the ground and a second portion on top of the first portion adapted to receive and firmly engage a post to be supported.

In known post supports of the above type, the first and second portions are rigidly interconnected, usually being welded together, with the attendant disadvantage that if the post support is driven into or anchored in the ground out of true with the vertical, for example if the support should strike a rock whilst being driven, or the desired location of the post does not permit the vertical positioning of a post support, then the support is incapable of supporting a post in a vertical attitude.

According to our invention a post support comprises a first member having a ground engaging portion adapted to be driven into or otherwise anchored in the ground, a second member including a post engaging portion, and a joint coupling the first and second members together for limited relative movement, the joint being so constructed and arranged that the position of the second member can be adjusted with respect to the first in order to support a post in a vertical attitude or other selected position whereafter the second member can be clamped to the first to maintain the second member rigidly in the said selected position.

This enables us to provide a post support which provides a support for a post in a vertical attitude or other selected position whilst not requiring those parts of the support below ground to adopt an exact equivalent position.

Preferably the joint comprises complementary co-operating bearing portions on the two members, in combination with a releasable fastener for clamping the bearing portions into mounting engagement to maintain the second member in the said selected position.

The second member and the joint are preferably provided with complementary arcuate or curved, preferably part-spherical, surfaces which may slide over each other whilst relatively moving the joint and the second member to the desired position. The fastenable engagement is achieved preferably by means of a nut and bolt, the bolt passing through both the second member and the joint, which can move in a specially adapted aperture which is preferably provided in the second member, although it could be provided in the joint. This aperture may be a slot or an enlarged circular hole.

In a preferred embodiment of the present invention, the first member is that member adapted for engagement with the ground and the second member that adapted to receive a post to be supported, although the opposite arrangement

is possible. In such a post support, the first member preferably comprises a plurality of plates connected along a common longitudinal axial edge and disposed to form a lobed spike by which means the post support may be anchored in the ground in use. However, a single plate may constitute the first member, or a spike of the ordinary kind.

An alternative form of first member is constituted by a leg, which may or may not be of the multi-lobe construction mentioned above, having a foot attached to its lower extremity by which means the post support may be set in concrete in use.

The post engaging portion of the second member preferably comprises an open-ended box of cross-section complementary or substantially complementary to that of the post to be supported in use, so that the end of a post may be inserted into the box. Screw threaded means may be provided which clamp the post within the box either by engagement with the post within the box or by compression of the box around the post. In particular, one corner of the box may be open with the adjacent sides adapted to form resilient portions provided with means for clamping the resilient portions around the post. The closing means may be flanges provided at the edges of the resilient portions adapted to receive screw threaded bolts acting in use to close the resilient portions.

A number of embodiments of the present invention are illustrated by way of example only in the accompanying drawings, in which:—

*Figure 1* shows a post support according to the present invention, partly in longitudinal cross-section;

*Figure 2* is an underneath plan view of the post support of *Figure 1*;

*Figure 3* is a top plan view of the post support of *Figures 1* and *2*;

*Figure 4* shows a second post support according to the present invention, partly in longitudinal cross-section;

*Figure 5* is a perspective view of part of a third post support according to the present invention; and

*Figure 6* shows part of a further post support according to the present invention.

As shown in *Figure 1*, a metal post support comprises a first member 1 rigidly attached by welding to a joint 3. Removably attached to the joint 3 is a second member 2.

As shown in *Figure 2*, the first member 1 comprises three radially disposed vanes 1a, 1b, 1c (any two of which could be formed from a single plate bent into two portions) attached by welding at their upper extremities to a plate 9, and to each other by welding along their common axial edge.

The plates are tapered towards their lower extremities and in use act as a spike which is driven into the ground to form an anchorage for the post support.

The joint 3 comprises a rim 11 and an arcuate surface 6 from which projects a bolt 7 welded to

the joint 3.

The second member 2 in its most basic form, comprises a square box having upstanding sides 5 and a base 4; possible forms of second member are discussed below. The base 4 has an aperture in the form of an elongate slot 10 for receiving the bolt 7 and in use is in clamping engagement with the nut 8 and the oversize washer 8a. The base 4 is of complementary arcuate shape to the upper surface 6 of the joint 3 enabling the positioning and fastening of the second member 2 anywhere along the length of the slot 10.

When a post is to be erected, the first member 1 and joint 3 may be detached from the second member 2 and driven into the ground. Alternatively, to avoid deformation of the joint 3 a cup shaped dolly (not shown) may be inverted and placed over the nut 7 and bolt 8 within the second member 2 whilst the latter is still attached to the joint 3; the upturned bottom surface of the dolly may then be used for driving the first member 1 into the ground. The second member 2 is then fastened in a portion by positioning of the slot 10 over the bolt 7 to take into account any deviation from the vertical of the buried parts 1 and 3, resulting in the sides 5 being vertically upstanding in order to receive a square-section post.

An alternative embodiment of the invention is shown in Figure 4. In this variant, the first member 1 and joint 3 are identical to those shown in Figure 1. The aperture of the second member 2, however, in this case comprises a circular hole 10a which is oversize with respect to the diameter of the bolt, enabling positional adjustment of the second member 2 relative to the joint 3 to a limited extent in all directions. Again, an oversize washer 8a is interposed between the nut 8 and the second member 2.

Figure 5 shows a post support provided with a joint 3 identical to that shown in Figure 4, but with the second member 2 removed and with an alternative form of first member 1 to that of previously described embodiments. In this variant, the first member 1 comprises a leg made up of vanes 1a, 1b, 1c (although the leg could be of any suitable transverse cross-section) attached by welding at its lower extremity to a foot 1d. This type of first member 1 is particularly suitable for embedding in concrete, which can be poured around it in a pre-prepared hole in the ground.

Figure 6 shows one possible configuration of the second member 2. One corner is opened and the sides 5a partially cut away to leave resilient portions 12. Flanges 13 are provided at the vertical edges of the resilient portions 12, and holes in the flanges 13 serve in use to receive bolts (not shown) which are tightened to close the resilient portions around the post.

The second member 2 may be of any transverse cross-section to receive a post of any desired cross-section. The aperture of the second member 2 may be of any shape or size depending on the degree of flexibility required in positioning the second member 2 relative to the joint 3; alternatively, the aperture could be provided on

the joint and the second member have an ordinary round hole to accommodate the bolt, which would simply be passed through the aperture rather than welded to the joint.

The transverse cross-section of the first member 1 may take any suitable form, depending on convenience of manufacture.

In another variant the first and second members could be reversed; that member which receives the post could be rigidly attached to a joint, which could be in sliding fastenable engagement with that member adapted for engagement with the ground.

## CLAIMS

1. A post support comprising a first member having a ground engaging portion adapted to be driven into or otherwise anchored in the ground, a second member including a post engaging portion, and a joint coupling the first and second members together for relative movement, the joint being constructed and arranged that the position of the second member can be adjusted with respect to the first in order to support a post in a vertical attitude or other selected position whereafter the second member can be clamped to the first to maintain the second member rigidly in the said selected position.

2. A post support as claimed in claim 1, in which the first and second members are relatively detachable, and the joint is adapted to permit relative angular and rotational movement therebetween.

3. A post support as claimed in claim 1 or claim 2, in which the joint comprises complementary co-operating bearing portions on the two members, in combination with a releasable fastener for clamping the bearing portions into mating engagement to maintain the second member in the said selected position.

4. A post support as claimed in any preceding claim in which the first and second members are provided with complementary mating arcuate or curved bearing surfaces adapted to slide over each other.

5. A post support as claimed in claim 4, in which the bearing surfaces are of part spherical outline.

6. A post support as claimed in any of claims 3 to 5, in which the releasable fastener comprises a nut and bolt connection.

7. A post support as claimed in claim 6 in which the bolt is upstanding from the bearing surface of the first member and projects through an aperture in the second member which has a dimension substantially greater than the diameter of the bolt.

8. A post support as claimed in any preceding claim in which the first member comprises a plurality of plates connected along a common longitudinal axial edge and disposed radially of such an axis, the plates depending from the bearing surface on the first member.

9. A post support as claimed in any of claims 1 to 7, in which the first member is constituted by a leg which is provided at its lower end remote from

the bearing surface with a foot by which means the post support may be set in concrete in use.

- 5 10. A post support as claimed in any preceding claim in which the post engaging portion of the second member comprises an open-ended socket constituted by a box of cross-section complementary or substantially complementary to that of the post to be supported in use and into which an end of a post may be inserted in use.
- 10 11. A post support as claimed in claim 10, in which one corner of the box is open with the adjacent sides adapted to form resilient portions, and closing means are provided for clamping the resilient portions around the post.
- 15 12. A post support as claimed in claim 11, in which the closing means comprises screw

threaded clamp bolts acting in use on flanges at the edges of the resilient portions to close the resilient portions.

- 20 13. A post support substantially as described herein with reference to and as illustrated in Figures 1 to 3 of the accompanying drawings.
14. A post support substantially as described herein with reference to and as illustrated in
- 25 Figure 4 of the accompanying drawings.
15. A post support substantially as described herein with reference to and as illustrated in Figure 5 of the accompanying drawings.
- 30 16. A post support substantially as described herein with reference to and as illustrated in Figure 6 of the accompanying drawings.